

CLAIMS

I/We claim:

- [c1] 1. A microfeature device package, comprising:
a first microfeature device having a first bond pad surface with a plurality of first bond pads positioned at least proximate to the first bond pad surface;
a second microfeature device having a second bond pad surface with a plurality of second bond pads positioned at least proximate to the second bond pad surface, the second bond pad surface facing toward the first bond pad surface;
a package connection site positioned to provide electrical communication between the first microfeature device and devices external to the device package;
a wirebond coupled between at least one of the first bond pads and the package connection site; and
an electrically conductive link coupled between the first microfeature device and at least one of the second bond pads of the second microfeature device.
- [c2] 2. The package of claim 1 wherein the wirebond is one of a plurality of wirebonds, and wherein all the wirebonds of the package are connected directly to the first microfeature device.
- [c3] 3. The package of claim 1; further comprising an encapsulant disposed adjacent to the first and second microfeature device packages.
- [c4] 4. The package of claim 1 wherein first microfeature device includes an intermediate bond pad electrically coupled to the at least one first bond pad, and

wherein the electrically conductive link is connected between the intermediate bond pad and the at least one second bond pad of the second microfeature device.

[c5] 5. The package of claim 1, wherein first microfeature device includes an intermediate bond pad electrically isolated from the at least one first bond pad, and wherein the electrically conductive link is connected between the intermediate bond pad and the at least one second bond pad of the second microfeature device.

[c6] 6. The package of claim 1 wherein the first and second microfeature devices have generally similar footprints and wherein an arrangement of the plurality of first bond pads is at least generally similar to an arrangement of the plurality of second bond pads.

[c7] 7. The package of claim 1 wherein the wirebond includes a first wirebond, and wherein the package connection site includes a first package connection site, and wherein the package further comprises:
a second package connection site; and
a second wirebond connected between the electrically conductive link and the second package connection site.

[c8] 8. The package of claim 1 wherein the electrically conductive link includes a volume of gold.

[c9] 9. A microfeature device package, comprising:
a first microfeature device having a first bond pad surface with a plurality of first bond pads positioned at least proximate to the first bond pad surface;

a second microfeature device having a second bond pad surface with a plurality of second bond pads positioned at least proximate to the second bond pad surface, the second bond pad surface facing toward the first bond pad surface;

a package connection site positioned to provide electrical communication between the first microfeature device and components external to the device package;

a wirebond coupled between at least one of the first bond pads and the package connection site; and

an electrically conductive link coupled between the at least one first bond pad of the first microfeature device and at least one second bond pad of the second microfeature device.

[c10] 10. The package of claim 9 wherein the electrically conductive link includes a volume of gold.

[c11] 11. The package of claim 9 wherein the electrically conductive link includes an intermediate bond pad electrically coupled to the at least one first bond pad, and a volume of solder disposed between the intermediate bond pad and the at least one second bond pad.

[c12] 12. The package of claim 9 wherein the first and second microfeature devices have generally similar footprints and wherein an arrangement of the plurality of first bond pads is at least generally similar to an arrangement of the plurality of second bond pads.

[c13] 13. The package of claim 9 wherein the first and second microfeature devices are generally identical, and wherein the at least one first bond pad is electrically coupled to a first intermediate bond pad of the first microfeature device, and wherein the at least one second bond pad is electrically coupled to a

second intermediate bond pad of the second microfeature device, and wherein the electrically conductive link includes a volume of solder disposed between the first intermediate bond pad and the at least one second bond pad.

[c14] 14. The package of claim 9 wherein the package connection site includes a common package connection site electrically coupled to both the first and second microfeature devices, and wherein the package further comprises:

- a first package connection site electrically coupled to another of the first bond pads; and
- a second package connection site electrically coupled to another of the second bond pads, with the first and second connection sites electrically decoupled from each other within the package.

[c15] 15. A microfeature device package, comprising:

- a first microfeature device having a first bond pad surface with a plurality of first bond pads and a plurality of intermediate bond pads positioned at least proximate to the first bond pad surface;
- a second microfeature device having a second bond pad surface with a plurality of second bond pads positioned at least proximate to the second bond pad surface, the second bond pad surface facing toward the first bond pad surface;
- a first package connection site positioned to provide electrical communication between the first microfeature device and components external to the device package;
- a first wirebond coupled between at least one of the first bond pads and the first package connection site;
- a second package connection site positioned to provide electrical communication between the second microfeature device and devices external to the device package;

a second wirebond coupled between at least one of the intermediate bond pads and the second package connection site; and
an electrically conductive link coupled between the at least one intermediate bond pad and at least one of the second bond pads of the second microfeature device.

[c16] 16. The package of claim 15 wherein the electrically conductive link includes a volume of solder.

[c17] 17. The package of claim 15 wherein the second microfeature device has a footprint that is larger than a footprint of the first microfeature device package.

[c18] 18. The package of claim 15 wherein no wirebonds of the package are connected directly to the second microfeature device.

[c19] 19. The package of claim 15, wherein the intermediate bond pad includes a first intermediate bond pad, and wherein the second microfeature device has a second intermediate bond pad electrically coupled to the at least one second bond pad, further wherein the electrically conductive link is disposed between the first and second intermediate bond pads.

[c20] 20. A method for forming a microfeature device package, comprising:
positioning a first microfeature device at least proximate to a second microfeature device, the first microfeature device having a first bond pad surface with a plurality of first bond pads at least proximate to the first bond pad surface, the second microfeature device having a second bond pad surface with a plurality of second bond pads at least proximate to the second bond pad surface, the first bond pad surface facing toward the second bond pad surface;

coupling a wirebond between at least one of the first bond pads and a package connection site, the package connection site being positioned to provide electrical communication between the first microfeature device and components external to the device package; and

coupling an electrically conductive link between the first microfeature device and at least one of the second bond pads of the second microfeature device.

[c21] 21. The method of claim 20 wherein the wirebond is one of a plurality of wirebonds, and wherein the method further comprises connecting all the wirebonds of the package directly to the first microfeature device.

[c22] 22. The method of claim 20, further comprising disposing an encapsulant adjacent to the first and second microfeature device packages.

[c23] 23. The method of claim 20 wherein the first microfeature device includes an intermediate bond pad electrically coupled to the at least one first bond pad, and wherein coupling an electrically conductive link between the first microfeature device and the at least one second bond pad includes coupling the electrically conductive link between the intermediate bond pad and the at least one second bond pad.

[c24] 24. The method of claim 20 wherein first microfeature device includes an intermediate bond pad electrically isolated from the at least one first bond pad, and wherein coupling an electrically conductive link includes coupling an electrically conductive link between the intermediate bond pad and the at least one second bond pad of the second microfeature device.

[c25] 25. The method of claim 20 wherein positioning a first microfeature device includes positioning a first microfeature device having a first footprint and a first arrangement of bond pads, with the first footprint being generally similar to a second footprint of the second microfeature device and with the first arrangement being at least generally similar to a second arrangement of the plurality of second bond pads.

[c26] 26. The method of claim 20 wherein coupling an electrically conductive link includes coupling a wirebond.

[c27] 27. The method of claim 20 wherein coupling an electrically conductive link includes coupling a volume of solder.

[c28] 28. A method for forming a microfeature device package, comprising:
positioning a first microfeature device at least proximate to a second microfeature device, the first microfeature device having a first bond pad surface with a plurality of first bond pads at least proximate to the first bond pad surface, the second microfeature device having a second bond pad surface with a plurality of second bond pads at least proximate to the second bond pad surface, the first bond pad surface facing toward the second bond pad surface;
coupling a wirebond between at least one of the first bond pads and a package connection site, the package connection site being positioned to provide electrical communication between the first microfeature device and devices external to the device package;
and
coupling an electrically conductive link between the at least one first bond pad of the first microfeature device and at least one second bond pad of the second microfeature device.

[c29] 29. The method of claim 28 wherein coupling an electrically conductive link includes coupling a volume of solder.

[c30] 30. The package of claim 28 wherein coupling an electrically conductive link includes disposing a volume of solder between the at least one second bond pad and an intermediate bond pad electrically coupled to the at least one first bond pad.

[c31] 31. The method of claim 28 wherein positioning a first microfeature device at least proximate to a second microfeature device includes positioning a first microfeature device having a first footprint generally similar to a second footprint of the second microfeature device and having an arrangement of the plurality of first bond pads at least generally similar to an arrangement of the plurality of second bond pads.

[c32] 32. The method of claim 28 wherein the first and second microfeature devices are generally identical, and wherein the at least one first bond pad is electrically coupled to a first intermediate bond pad of the first microfeature device, and wherein the at least one second bond pad is electrically coupled to a second intermediate bond pad of the second microfeature device, and wherein coupling an electrically conductive link includes disposing a volume of solder between the first intermediate bond pad and the at least one second bond pad.

[c33] 33. The method of claim 28 wherein the package connection site includes a common package connection site electrically coupled to both the first and second microfeature devices, and wherein the package further comprises:
electrically coupling a first package connection site to another of the first bond pads; and

electrically coupling a second package connection site to another of the second bond pads, with the first and second connection sites electrically decoupled from each other within the package.

- [c34] 34. A method for forming a microfeature device package, comprising:
positioning a first microfeature device at least proximate to a second microfeature device, the first microfeature device having a first bond pad surface with a plurality of first bond pads at least proximate to the first bond pad surface, the second microfeature device having a second bond pad surface with a plurality of second bond pads at least proximate to the second bond pad surface, the first bond pad surface facing toward the second bond pad surface;
coupling a first wirebond between at least one of the first bond pads and a first package connection site, the first package connection site being positioned to provide electrical communication between the first microfeature device and devices external to the device package;
coupling a second wirebond between at least one of the intermediate bond pads and a second package connection site, the second package connection site being positioned to provide electrical communication between the second microfeature device and devices external to the device package; and
coupling an electrically conductive link between the at least one intermediate bond pad and at least one of the second bond pads of the second microfeature device.

- [c35] 35. The method of claim 34 wherein coupling an electrically conductive link includes coupling a volume of solder.

- [c36] 36. The method of claim 34 wherein positioning a first microfeature device proximate to a second microfeature device includes positioning a first

microfeature device having a footprint that is smaller than a footprint of the second microfeature device.

[c37] 37. The method of claim 34, further comprising coupling no wirebonds of the package directly to the second microfeature device.

[c38] 38. The package of claim 34 wherein the intermediate bond pad includes a first intermediate bond pad, and wherein the second microfeature device has a second intermediate bond pad electrically coupled to the at least one second bond pad, further wherein coupling an electrically conductive link includes disposing the electrically conductive link between the first and second intermediate bond pads.